

Report on the Ukrainian Energy Efficiency Financing Program¹ January-March 2001

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HIGHLIGHTS

- Ukrainian government allocates \$4.5 million for Ukrainian Federal Energy Management Program.
- UkrEsco signs financing contracts totaling over \$1 million with Freedom Farm, Shostka Dairy, and Vinnitsya Meat Processing Plant.
- Rosava implements \$760,000 in energy efficiency recommendations.
- ARENA-ECO completes energy audit at Zaporizhzhia Ferrous-Alloy Plant.
- Second business plan training seminar for energy efficiency entrepreneurs attracts almost 50 applicants.

ACTIVITY DETAILS {tc "ACTIVITY DETAILS " \ 3}

Industrial Energy Efficiency Project{tc "Industrial Energy Efficiency Project"}

Recent Investments: Rosava is implementing \$760,000 in energy efficiency upgrades. ARENA-ECO recommended these measures in its energy audit report. They include steam traps, improved upgraded compressors, furnace improvements and a switch to a new tariff structure. UkrEsco has also signed three financing contracts with Freedom Farm, Shostka Dairy and Vinnitsya Meat Processing Plant, respectively. Industrial Real Estate (IRE) prepared the financial reviews of these companies in preparation for the financing. These UkrEsco contracts are worth a total of \$1,050,000.

Zaporizhzhia Ferrous-Alloy Plant: ARENA-ECO conducted an energy audit of the plant and prepared an energy audit with recommendations on improving energy efficiency. The audit found \$2.3 million in low-cost energy efficiency opportunities at the plant. Annually, these measures would save \$1.4 million. The measures include compensation of reactive power to reduce grid losses, more efficient electric motors and variable speed drives, high efficiency gas burners, and improvements to the compressed air system. The plant is currently implementing a major modernization program to improve efficiency and product quality and it is presenting the energy audit recommendations as an investment request to its board in September 2001. IRE also discussed financing options with the plant, including financing from UkrEsco and the European Bank from Reconstruction and Development. The company's main shareholders remain one of the best options for potential financing.

Sevastopol Shipyard: The company has stated its intent to implement all measures recommended in the energy audit report. The measures require \$3.4 million in investment. The shipyard's main shareholder, Sigma Group, has committed to finance a major portion of the measures. As a result, the shipyard has begun implementing the compressor measures. IRE has also met with the Defense Enterprise Fund (DEF) on the company's behalf. DEF's managers have committed in principle to provide \$500,000 in financing and DEF is now working to organize this investment. UkrESCO also expressed an interest in participating in this deal.

Other Plants: The industrial team continued its search for well-managed, profitable energy intensive companies that could benefit from energy efficiency improvements. The team conducted new research on potential corporate participants and visited several of these companies during the first quarter. As a result, the team decided to include Kramatorsk Cement Plant and Kostopil Glass Plant in the program. Kramatorsk supplies cement to the construction and reinforced concrete industries. Gostomel recently purchased Kostopil Glass Plant and is planning to make major energy efficiency investments there.

¹ The Pacific Northwest National Laboratory (PNNL) manages this program for the U.S. Department of Energy and the Agency for International Development. PNNL provides support for local capacity building by utilizing, to the extent possible, the assistance of ARENA-ECO, the Ukrainian Agency for Rational Energy Use and Ecology.

ARENA-ECO is planning energy audits at both Kramatorsk and Kostopil later this spring. IRE will also conduct financial assessments at the companies.

A special industrial update report provides additional information on the status of all the industrial energy efficiency projects (see attached).

Business Plan Training for Energy Efficiency

Pacific Northwest National Laboratory (PNNL), ARENA-ECO, and IRE held the second of four business plan training workshops. The workshop was held in Kharkiv in February 27-March 2, 2001 and focused on suppliers of energy efficiency equipment and services. Forty-six Ukrainian business people applied for the seminar, and 19 were accepted, allowing for a highly motivated study group. Seminar participants were selected based on their draft business plans, short project descriptions and applicant questionnaires that they filled out. Participants included a representative of a former defense enterprise planning to produce efficient lighting and staff from Kharkiv-based meter and control companies.

The seminar was kicked off by several high level Ukrainian officials, including the Head of the State Committee on Energy Conservation, the deputy governor of Kharkiv Region, and the Mayor of Kharkiv. The seminar leaders divided the training into three areas: energy efficiency/auditing, business planning, and financing. Participants received certificates upon completing the training course.

The program is designed to be very practical, focusing on actual funding and implementation of energy efficiency projects. Participants spent much of the week improving their draft business plans. Those with the most promising business plans will receive additional targeted assistance in structuring financing for their projects.

ARENA-ECO also selected participants for the third business plan training seminar in Donetsk in May 2001. The focus of this seminar is on industrial companies. The final seminar, for financiers, will be in Kyiv Region in June 2001. This last seminar will teach Ukrainian bank, fund, and shareholder representatives how to evaluate energy efficiency projects and will provide the star participants of the previous seminars with an opportunity to present their business plans.

Ukrainian Federal Energy Management Program (FEMP)

The U.S. Department of Energy (DOE) has provided the Ukrainian Government with information on the U.S. FEMP program, which has saved the U.S. government billions of dollars in energy expenses. As a result, Ukrainian President Kuchma and the Cabinet of Ministers have issued decrees on improving energy efficiency in Ukrainian government facilities. In March 2001, the Ukrainian Government approved a budget allocating 25 million hryvni (\$4.5 million) for targeted financing of energy efficiency projects in government facilities. The State Committee on Energy Conservation has organized a tender to select projects for financing; one of the evaluation criteria is the existence of matching funds from the project's host organization.

Kyiv Public Buildings Energy Efficiency Project (formerly KIBA)

The Kyiv City Administration and World Bank are proceeding on target with the implementation of this project. In the first quarter of 2001, the City completed energy audits and heat substation design documents for the 330 buildings in the project. The Project Implementation Unit also organized a tender for the heat substations in the majority of the buildings (a previous tender covered the first set of substations).

A DOE team prepared the original feasibility study for the project in 1997-98.

Kharkiv District Heating Project

The U.S. Trade and Development Agency (TDA) has issued a tender for preparing a full feasibility study for this project. The World Bank has placed this project in its project pipeline. Several U.S. companies have bid on the TDA tender; TDA and the Kharkiv Oblast State Administration are currently reviewing the proposals to select a winner. DOE sponsored the prefeasibility study for this project.